

an area that several authors have commented on as being a peculiar mosaic of prairie and Allegheny vegetation which is not typical for the state. The specimen appeared not unusual, morphologically, judging from the description. COLLECTION DATA: Adams Co., sw. corner Oliver Twp., post oak-white oak woods, *E. Lucy Braun*, May 18, 1954.

Leontodon autumnalis L. var. **autumnalis**. The plant has become established as a weed of northern counties, and its occurrence represents an eastward and southward range extension. COLLECTION DATA: Summit Co., lawn weed, Cannon road $\frac{3}{4}$ mi. e. of Twinsburg, *Ervin M. Herrick*, August 28, 1955. Other specimens examined from Ashtabula, Franklin, Lake, and Medina counties.

Leontodon autumnalis var. **pratensis** (Link) Koch. A single collection was seen of this variety, although one might expect to find it to be more abundant, especially in the northern part of the state. COLLECTION DATA: Ashtabula Co., Trumbull, *L. E. Hicks*, June 10, 1931. — DEPARTMENT OF BOTANY, OHIO WESLEYAN UNIVERSITY, DELAWARE, OHIO.

THE BALANOPHORACEAE IN THE CARIBBEAN FLORA¹

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This small family of root parasites is represented in the Antilles by two genera, *Scybalium* and *Helosis*. One species of *Scybalium*, *S. jamaicense*, has been found in Cuba, Jamaica, Hispaniola and Puerto Rico.

The second genus, *Helosis*, consists of three species known from South America and Central America. Sandwith (Kew Bull. 1931:59. 1931.) and Harms in his monograph (Pflanzenfam. 2nd ed. 16b:321. 1935.) suggest that one of them, *H. cayennensis*, may possibly occur in Guatemala and Cuba as well as in northern South America. Standley and Steyermark (Flora of Guatemala, Fieldiana, Bot. 24:93. 1946.) refer the Guatemalan specimens to *Helosis mexicana*, but state that "three species have been described, all of them perhaps to be reduced to *H. cayennensis* (Swartz) Spreng. of northern South America. Only the following [*H. mexicana*] is known from Central America." The specific differences suggested by Harms for the three species of *Helosis* do not appear to be substantial taxonomic characters. However,

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as a group, the plants have been poorly collected and have not received careful comparative study for taxonomic classification.

The earliest record of *Helosis* from the West Indies appears in Grisebach, *Flora British West Indies* (309. 1860.), when he reports *Helosis guianensis* from Trinidad. In his *Catalogue Plantarum Cubensium* (118. 1866.) Grisebach lists "*Helosis mexicana* Liebm.", citing the Charles Wright collection 2636 (GH). This plant has not been recollected. Leon and Alain (*Flora de Cuba* 2:84. 1951.) change this identification to *Helosis guianensis* L. C. Rich. Two additional collections of *Helosis* from the Lesser Antilles are now on hand, and allow further consideration of this peculiar root parasite.

Dr. Walter Hodge, in the course of his field work in Dominica, received a report that *Helosis* was "quite abundant on Morne Anglais". He did not personally encounter the plant, but received a specimen from Mrs. Alastair Forbes collected on the banks of the Laurent River near the western base of Morne Negre Maron (*Hodge 1206*, GH). This specimen has been unidentified since 1940. More recently, Mr. George Proctor made an excellent collection (*Proctor 17764*, GH), including material preserved in alcohol, from the mossy montane forest between 2500 and 3000 feet on the northwest spur of Morne Gimie in St. Lucia.

The three collections from the West Indies can now be examined together and compared with material from South and Central America. All specimens are small, with nearly globular heads. None exceeds 5 cm. in height in mature condition. The heads range from 1–2 cm. in length and 1–1.5 cm. in thickness. The deciduous hexagonal scales of the anthophore are only 1.5–2 mm. in diameter, and the apex is extended in a setaceous tip. Both male and female flowers are borne in the head. The pistillate flowers remain smaller than the abundant paleae, with only the styles protruding. The bilabiate perianth is represented by two triangular appendages, 0.1–0.2 mm. long. The perianth of the staminate flowers is well developed by contrast with a tube 2.5 mm. long and three ovate lobes 1.5 mm. in length. The perianth lobes are valvate and strongly concave. The three filaments

are stout but cylindrical, and in specimens preserved in alcohol these are free throughout their length. The short anthers, however, are completely connate.

This description agrees in the main with the excellent diagnosis given by Sandwith for *Helosis cayennensis* (Kew Bull. 1931: 58–9. 1931.). It differs in the smaller size of all parts and in the description of the free filaments.

In a key by Leon and Alain *Scybalium* is distinguished from *Helosis* by the former genus having three stamens and the latter two. Standley and Steyermark also describe the staminate flower as having two stamens. Both of these pairs of workers refer to fused filaments. Apparently their descriptions have been based on dried herbarium material where the filaments seem to adhere tightly. The report of only two stamens is apparently an error, for a reëxamination of the Wright collection from Cuba and of several specimens from Central America reveals three stamens in all specimens.

The West Indian specimens are referred to *Helosis cayennensis* (Sw.) Spreng. *Helosis guianensis* L. C. Rich. is regarded by Harms and Sandwith as a synonym. All the West Indian material is of smaller size, has longer setaceous tips to the hexagonal scales of the head, and a more obvious bilabiate development of the perianth of the pistillate flowers. Until additional collections are available from the Lesser Antilles and from Cuba it is not worthwhile to use these minute characters in an obviously reduced and specialized plant as distinctions for a new species.

While Harms uses ovule characteristics to distinguish between *Scybalium* and *Helosis*, the single species of each in the West Indies can be separated on the basis of the numerous overlapping scales of the peduncle of *Scybalium* and the naked peduncle of *Helosis* which may have a single annulus of short but broad scales. The bracts of the flower head of *Scybalium* are broadly triangular, flat and imbricated, while those of *Helosis* are peltate, hexagonal in outline, valvate, and extended to a setaceous tip.